

# Tri-gas Incubator

## Managing, Optimal Environmental for Cell Growth

Tri Gas Incubator is used for precise environmental control in cultivating and experimenting with biological samples. It finds applications in laboratories and research facilities for controlled environments in cell culture, microbiology, tissue culture, and pharmaceutical testing.

A tri-gas incubator is a type of cell culture incubator that uses a combination of carbon dioxide (CO<sub>2</sub>), oxygen (O<sub>2</sub>), and nitrogen (N<sub>2</sub>) to create a stable environment for cell growth.

Display : Touch Screen 7".

Cooling Control : Compressor.

Temperature Control : 6 Side heating ( 5 side and 1 door ).

Dehumidify : Control Compressor + Heater Foundations - Advance Algorithm.

Humidity Control : Built In Humidity chamber connected with direct Water Line.

A tri-gas incubator is a device that provides a controlled environment for biological samples, such as cells, tissues, and embryos. They are used in research and production facilities for a variety of applications, including cell culture, microbiology, and pharmaceutical testing.

### Application

**Cell culture** - Tri-gas incubators are used to cultivate animal cells.

**Tissue engineering** - Tri-gas incubators are used to cultivate tissues and perform tissue engineering research.

**In vitro fertilization (IVF)** - Tri-gas incubators are used to create a controlled environment for embryos during IVF.

**Pharmaceutical testing** - Tri-gas incubators are used to test the effects of physical and chemical factors on pharmaceutical products.

**Stem cell research** - Tri-gas incubators are used to research and cultivate stem cells.

**Mammalian tissue research** - Tri-gas incubators are used to research mammalian tissues and collect secretions

### Features

**Precise environmental control** - Tri-gas incubators use sensors to monitor and control temperature, humidity, and gas levels.

**Hepa filtration** - Tri-gas incubators use HEPA filters to improve air quality and control contamination.

**Rapid CO<sub>2</sub> recovery** - Tri-gas incubators use PID control and sensors to quickly recover CO<sub>2</sub> levels after the door is opened.

### Technical Parameters:

Temperature Control	Digital PID + Fuzzy Logic
Temperature Range	2.0°C to 55.0 °C (Compressor and Heating Function)
CO <sub>2</sub> Range	0% to 20%
CO <sub>2</sub> Accuracy	±0.1% (5% / 37 °C)
CO <sub>2</sub> Resolution	0.100
CO <sub>2</sub> Sensor	IR CO <sub>2</sub> Sensor
CO <sub>2</sub> Control	Touch Screen Advance Microcontroller
Inlet pressure range	0.6 to 0.7bar
O <sub>2</sub> Range	0.6 to 85%
O <sub>2</sub> Sensor	IR dioxide sensor
N2 Display (Inert Gas)	Calculated from CO <sub>2</sub> and O <sub>2</sub> Sensor Input
Temperature Control	6 Side heating ( 5 side and 1 door ).
Humidity Control	Built In Humidity chamber connected with direct Water Line
DeHumidity Control	Compressor + Heater Foundations - Advance Algorithms
Cooling Control	Compressor
Display	Touch Screen 7"
Operating panel	Touch Panel - Capacity
Jacket type	Dry Wall Type (six-side gradient heating design) / Air Heating
Chamber material	Stainless Steel (304)
IP code	IP20
Number of shelves	4 (max 8)
Power	230V, 50Hz
Chamber dimension	1069 (Height) x 719 (Depth) x 669 (Width) mm
Overall dimension	1760 (Height) x 980 (Depth) x 820 (Width) mm
Weight	178 kg



**Dual Beam IR CO<sub>2</sub> Sensor**

0 to 100% | SS-304 Casing  
0 to 20% | SS-304 Casing

Registered Design No.: 374333-001

